CATÓLICA LISBON
BUSINESS & ECONOMICS

Equity Valuation of The Coca-Cola Company

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Dissertation submitted in partial fulfilment of requirements for the MSc in International Management, Major Corporate Finance, at the Universidade Católica Portuguesa and BI Norwegian Business School, May 29, 2021

Abstract

This dissertation has taken the perspective of an Investment Bank with the purpose of valuing the equity of The Coca-Cola Company, one of the leading companies in the non-alcohol beverage industry and one of the most recognised brands in the world.

Several methods and articles from prestigious authors are discussed to end up with the most accurate result.

The valuation is carried through using a discounted cash flow model of the Company's free cash flow to firm. To challenge or strengthen the result of the discounted cash flow valuation, it is accompanied by a relative valuation model using multiples. The multiples are based on Coca-Cola's top competitors, as well as companies with similar characteristics.The result of the valuation is a fair price of $53.82 and a HOLD recommendation.

Lastly, the result is compared to the valuation done by Barclays, an internationally recognised investment bank. The result ends up being below the recommendation of the investment bank. Potential explanations being different assumptions of growth rates in revenues.

Resumo

Esta dissertação adota a perspectiva de um banco de investimento com o propósito de avaliar o capital da Coca-Cola, uma das empresas líderes na indústria global de bebidas não alcoólicas e uma das marcas mais reconhecidas no mundo.

Diversos métodos e artigos escritos por autores de prestígio são discutidos ao longo da dissertação para o alcance de um resultado mais preciso.

A avaliação da empresa foi realizada através de um modelo de fluxo de caixa descontado do fluxo de caixa livre da Coca Cola. Para desafiar ou fortalecer o resultado da avaliação do fluxo de caixa descontado, ela é acompanhada por um modelo de avaliação relativa usando múltiplos. Os múltiplos são baseados nos principais concorrentes da Coca-Cola, bem como em empresas com características semelhantes. O resultado da avaliação é um preço justo de $53,82 e uma recomendação HOLD.

Por fim, o resultado é comparado com a avaliação feita pelo Barclays, um banco de investimento reconhecido internacionalmente. O resultado acaba ficando abaixo da recomendação do banco de investimento. As possíveis explicações são diferentes premissas das taxas de crescimento das receitas.

Acknowledgements

This Dissertation marks the end of several years of hard work and dedication.

I want to thank Professor José Carlos Tudela Martins for many interesting dissertation seminars, helpful comments throughout the process of writing my thesis, and insights in the practice of equity valuation. I want to thank my colleagues from the dissertation seminars for constructive discussions and inputs.

I could not have come so far if it was not for the support from my friends and family. Especially my brother, who helped me with the writing process and constructive comments, as well as Jonas and Katarina who offered great companionship during my stay in Lisbon. Also I want to thank Vegard for letting me stay with him for the remaining two months of my education.

Lastly, I want to thank my girlfriend for her patience, unconditional love and support during these exciting, yet challenging times.

I could not have accomplished my goals if it was not for the help and support from these people.

Executive Summary

The Coca-Cola Company is a world leading brand in the non-alcohol beverage industry, with some of the worlds most recognisable beverages such as Coca-Cola, Fanta and Sprite.

The beverage industry was severely hit by the pandemic. Closed bars and restaurants, along with cancelled events reduced demand in all segments. Coca-Cola quickly initiated several measures in order to emerge stronger.

Besides the uncertainties related to the pandemic, changes in consumer preferences and rising health concerns have startled the beverage industry. Coca-Cola has in response expanded their portfolio of products to include healthy alternatives. As Coca-Cola has previously had quick recoveries from large downfalls, and by keeping up with consumer preferences, they are expected to keep growing at a steady pace.

The valuation is carried through using a discounted cash flow method with free cash flow to firm. The valuation is complemented with a relative valuation using multiples. Companies used in the relative valuation are PepsiCo and Dr. Pepper, which both are industry peers, as well as Kellog and Unilever, which have comparable characteristics.

The discount valuation method results in a price target of $53.82 while the relative valuation results in a price target equal to $37.65. Both targets rely on crucial assumptions like revenue growth and choice of peer group.

Lastly, the procedure and result is compared to the work of an investment bank. The investment bank has a price target which is significantly above the target found in this dissertation. Possible reasons are different assumptions in revenue growth.

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1Introduction

Equity Valuation is an umbrella term for the many methods used to evaluate the equity of a company, which can fulfill several purposes. Private investors use it to find a fair price for one share of a company, it is a critical step in a M&A process, and it is used when companies are going public for the first time, just to name a few. Therefore, as Damodaran puts it, "Valuation can be considered the heart of finance" (2007).

The goal of this dissertation is to value the equity of the Coca-Cola Company (Coca-Cola or the Company). The Coca-Cola Company is one of the most recognised companies throughout the times. It was founded in Atlanta and was taken public in 1919 with a price of $40 per share. As one of the leading companies in the beverage industry, Coca-Cola is present in more than 200 countries with several of the leading products in the non-alcohol beverage industry, with the most known product being Coca-Cola in all its variants.

This dissertation takes the perspective of someone working in the investment advising community. It starts off by reviewing a limited part of the vast amount of literature regarding equity valuation, justifying rigorously the chosen method used to valuate the equity of Coca-Cola. The equity valuation is then carried through, with the result being either a *buy*, *hold* or *sell* recommendation, and a fair price estimate.

Two main challenges present themselves when conducting an equity valuation. First of all, equity valuation is an attempt to predict the future, which is difficult for obvious reasons. Consequently, the valuation will rely on models and assumptions. Making the right decisions will be crucial for the end result. Secondly, the ongoing pandemic has startled economies in every country. Even though outlooks are becoming more positive, the uncertainty still dominates, which makes the prediction even more problematic.

Conclusively, the process and result will be compared with the result of Barclays, an internationally recognized investment bank. Eventual differences or similarities in target price will be discussed. A comparison to an investment bank can strengthen the result, as well as elucidate any weaknesses.

2Literature Review

Throughout the decades, many researchers have tried to find the optimal model to use in order to find the true value of a company. This have resulted in a number of models to be utilized, ranging from simple multiples to more complex cash flow analyzes. The consequence is an inconsistency in the valuation of companies. Different models often yield different answers, or even more complicated, the same valuation model might result in different answers according to the assumptions made.

These inconsistencies are a problem which a group of Goldman Sachs analysts have tried to resolve. They argue first of all that every valuation method is virtually expressing the same fundamental model. Furthermore, they argue that it is possible to express one model in terms of another (Young, Sullivan, Nokhasteh, A., & Holt,1999).

The many models that exist share a common goal: to find a precise estimate of the true value of a company. According to Damodaran, this estimate should be based on the expected cash flow generated by the company (2016). Further, Timothy Leuhrman states in his guide to valuation for general managers that every valuation method is dependent on three factors: cash, timing and risk, and that models only vary in structural features (1997).

This literature review will discuss some of the arguably most used valuations methods, considering their strengths and weaknesses, and justifying rigorously the method chosen to validate the equity of Coca-Cola.

2.1 Discounted Cash Flow

The discounted cash flow (DCF) method is directly derived from the idea that investors purchase an asset with the expectation of gaining some cash flow in the future. Thus, these models seek out the present value of these cash flows (Damodaran,2007). Going back to Timothy Leuhrman (1997) and his idea that every valuation method is a function of cash, timing, and risk, the DCF valuation method can be summarised by the following equation:

$$Present\,Value = \frac{Future\,Value}{1 + Discount\,Rate} = \sum_{t=0}^{n} \frac{E(CF)_t}{(1+k)^t} \quad (1)$$

The present value is the value of the asset today, the future value is the value of the expected cash flows in the future, and 1 + discount rate is a discounting factor. The timing in this case, is reflected by discounting the value to today, represented by t=0. The risk is reflected in the discount factor, k, which contains a risk premium as future cash flows contains uncertainty. Lastly, the cash factor is reflected in the expected cash flows at time t.

DCF is considered by many to be the leading valuation methodology at this point. Leuhrman states that DCF analysis emerged as the best practise in the 1970s (1997), while Damodaran wrote: "This approach gets the most play in academia and comes with the best theoretical credentials" (2007).

In an empirical analysis conducted by Steven Kaplan and Richard Ruback (1995) on management buyouts and leveraged recapitalization, they found evidence that DCF method provides reliable results for market values. As the procedure is similar to equity valuation, the result still serves as an argument for the reliability of the DCF method in this thesis.

Pablo Fernández also states that DCF models are the most used, and also the most correct valuation methods. However, there are several fall pits when using this methodology, such as incorrect risk-free rate, discount factor and valuation of the tax shield. The reason is that the valuation is based on future forecast, and must therefore be based on estimates and assumptions (Fernández,2007).

The previously discussed analysts from Goldman Sachs also points out that the terminal value is the most important element of the valuation (Young et al.,1999). All these factors will be discussed.

2.1.1 Dividend Discount Model

Many of the oldest discounted cash flow models are dividend discount models (DDM). The basis of the DDM is that an investor expects two types of income when buying shares of a company. Firstly, they expect dividends, and secondly, they expect some capital gain at the end of their holding period. However, when valuing a company, it is common to expect an infinite holding period. Therefore, the value of the stock is the present value of all future dividends. This can be written as:

$$Value\ per\ share\ of\ stock = \sum_{t=1}^{t=\infty} \frac{E(DPS_t)}{(1+k_t)^t} \quad (2)$$

Here, $E(DPS_t)$ equals the expected dividend per share at time t, and k_t is the appropriate cost of equity (Damodaran,2007).

Even though several researchers have made the connection between present value and dividends, Gordon was the first to develop a model which caught a lot of attention in academia (Damodaran,2007). The model was developed in collaboration with Eli Shapiro (1956), and did not rely on future forecasts of dividends, but rather two significant assumptions.

First, a company is assumed to retain a part of its earnings to put back into the operation, and second, a company is assumed to earn a rate of return on the book value of its common equity. The model can be written as follows

$$P_0 = \frac{D_0}{k - g} \tag{3}$$

Here, D_0 is the dividend in the current period, k is the appropriate discount factor, and g is the growth rate of dividends. One of the complications of the model is that it assumes a steady growth in dividends. In his paper, Gordon suggest the current dividend growth rate as an estimate of the future dividend growth rate. He further discusses the limitation of the model in case of low, zero or negative earnings.

More on, Damodaran (2007) argues that the growth rate of dividends cannot exceed the growth of the economy, nor the growth of profits, as this would not be feasible.

There are several types of DDMs that have been developed in order to be applicable in different scenarios. One example is the multi-stage model, developed to consider companies characterised with a fast growing phase early in the life of the company, followed by a steady growth in later periods.

Even though the simplicity of the DDM is something that has long been appreciated, it is also the reason for its most severe limitations. For example, it does not account for firms who retain earnings in order to build up cash reserves, nor the firms who pay out dividends even though they do not posses the necessary excess cash (Damodaran,2007).

Lastly, one of the major critiques of the DDM has been whether the volatility in stock prices can be justified by changes in expected future dividends. One of those who researched the question was Robert J. Shiller (1980) who concluded that the observed changes in dividends were not severe enough to explain changes in stock prices. Later on, a number of researchers have come to the same conclusion (Jiang & Lee,2005).

2.1.2 The Ohlson Model

Closely linked to the DDM, James A. Ohlson (1995) developed a model that takes a starting point in the dividend discount model. He then extends the model to include what Ohlson terms the clean surplus relation (CSR), which is built on accounting theory. Essentially, CSR states that the book value (y) in time period t, equals book value in time t-1, plus earnings (x) net of dividends (d) in time t. It is formulated as such:

$$y_t = y_{t-1} + x_t - d_t \tag{4}$$

The idea is that all change in owners equity that is unrelated to dividends must pass through the income statement, and thus be captured by CSR. Furthermore, the model is built on three critical assumptions: [1] present value of expected dividends determines the market value, [2] CSR holds and dividends reduce book value without affecting current earnings, and [3] abnormal earnings follows a stochastic time-series behaviour, captured in a linear model and defined as current earnings minus a charge for the use of capital.

From these assumptions, Ohlson derives relationships which he feeds back into the CSR (equation4) and ends up with the following model:

$$P_t = y_t + \frac{(R_f - \omega)}{\omega^t}\alpha_1 x^a \tag{5}$$

$$= \geq 0$$

The same year, the model which has been named the Ohlson model (OM) was extended by Feltham and Ohlson (1995). The extension of the model is termed the Feltham-Ohlson model (FOM). Through their paper, they go even more in depth of the information dynamics of the model. The model differentiate between asset classes, providing different CSR for financial assets and operating assets. The two models are based on the same accounting theories and assumptions, and are closely derived. Therefore, without going into more detail, the FOM is defined as:

$$P_t = bv_t + \alpha_1 ox^a + \alpha_2 oa_t + \beta v_t \tag{6}$$

$$t$$

Both the OM and FOM have been important for the literature regarding equity valuation, es-

pecially regarding the CSR. They have been praised for their primitiveness, and for going back to basic. The work of Ohlson, and Feltham and Ohlson have had many empirical implications and unusual amount of attention for (Liu & Ohlson,2000;Victor,1995).

Lo and Lys have suggested five possible reason for why the two models quickly became popular, which is as follows. [1] The relation between valuation and accounting numbers have been appreciated. [2] The versatility of the model is appreciated. [3] A high R^2 have been found in several analysis. [4] The high R^2 suggest that market value is strongly related to equity, net income and dividends. Lastly, [5] with the high R^2, OM can be used in policy recommendations (Lo & Lys, 2000).

However, through their empirical research, Lo and Lys found that the models did not fully deserve the enthusiasm observed. First of all, many researchers misused the model, leaving out the information dynamics which is arguably the most important part. Secondly, the R^2 is found to be upward biased in several occasions. Thirdly, they discussed studies that critically test the model and found that it does not perform significantly better than other models.

Lastly, the model are set in a world with perfect capital markets following Modigliani and Miller, which have been proven to fail in the real world (Lo & Lys,2000). Damodaran is one who shares the skepticism of Lo and Lys, claiming that neither does the model suggest something radically new, nor does it defend the high R^2 found by many researchers.

2.1.3 Free Cash Flow

Free cash flow seeks out the future claims to investors. Cash flows before debt payments and after reinvestment needs are free cash flow to firm (FCFF), while cash flows after debt payments and reinvestment needs are free cash flow to equity (FCFE) (Damodaran,2007).

Both valuation methods are built on forecasting free cash flows, and then discounting them at an appropriate discount factor to find its value today. Generally, the formulation can be written as such:

$$\sum_{t=}^{\infty} \frac{E(CF_t)}{(1+k)^t} \tag{7}$$

Here, CF is the cash flows and k is the appropriate discount rate. Going back to Luehrman (1997), it can be see that the cash flow represents cash, in regards to timing we discount it back to period 1,

and the discount factor should account for the appropriate risk. As both approach are built on the same basis, and it is possible to derive FCFE from FCFF, the two methods will not be discussed separately.

The free cash flow to equity is not far away from the dividend discount model (section2.1.1). Some would go as far to say that the free cash flow to equity is nothing but potential dividends. The definition of FCFE is:

$$\begin{aligned} FCFE = &\text{Net Income} + \text{Depreciation} - \text{Capital Expenditures} \\ &- \text{Change in non-cash working capital} \\ &- (\text{New debt issued} - \text{Debt payments}) \end{aligned} \tag{8}$$

The FCFE are discounted by the cost of equity (Section2.1.5). The FCFF takes into account the free cash flow to all invstors. The FCF is thus:

$$\begin{aligned} FCFF = &\text{After-Tax Operating Income} \\ &- \text{Capital Expenditures} - \text{Depreciation} \\ &- \text{Change in non-cash working capital} \end{aligned} \tag{9}$$

FCFF is discounted by the weighted average cost of equity (Section2.1.7) (Damodaran,2007).

2.1.4 Adjusted Present Value

The adjusted present value (APV) approach separates the value of debt financing from the value of the firms assets. The approach start off by valuing the unlevered firm, and then adds on the net effect of leverage. The value of the company can thus be written as (Damodaran,2007):

$$\begin{aligned} \text{Firm Value} = &\text{Value of Unleverd Firm} \\ &+ \text{Present Value of Expected Tax Benefits} \\ &- \text{Expected Bankruptcy Cost} \end{aligned} \tag{10}$$

APV is one of the valuation methods Leuhrman suggests managers should learn, in his guide

to valuation for managers (Luehrman,1997). He argues that the brake down structure of the model is more intuitive, at least from a managerial point of view.

However, there is an inconsistency in the literature regarding the valuation of tax benefits. Pablo Fernandez (2004b) goes against several well recognised authors when he argues that the value of the tax shield is equal to the difference between two cash flows: the present value of taxes for the unlevered company, and the present value of taxes for the levered company. Cooper and Nyborg (2006) goes directly against Fernandez, stating that the value of tax savings is indeed the present value of the tax savings.

Laurence Booth addresses other difficulties and potential fall pits of the APV approach (2002). Most importantly, APV is heavily relying on the assumptions of Modigliani and Miller, which have been proven to fail in real life. He further stresses that APV overvalues the tax advantages, which leads to an incorrect valuation.

2.1.5 Cost of Equity

"The cost of equity is a key ingredient of every discounted cash flow model" - Damodaran (2016). The cost of equity is defined as the return on equity that investors expects. Damodaran expresses two main problems with the cost of equity: i. it is an implicit cost which cannot be observed, and ii. different investors might have different perceptions of risk. In the same book, Damodaran moves on to discuss three different methods of finding the cost of equity.

The first methods, which quickly became the industry norm, is the capital asset pricing model (CAPM):

$$E(R_e) = R_f + \beta\,(Risk\ Premium) \tag{11}$$

Here, $E(R_e)$ is the expected return on equity, which is the cost of equity and R_f is the return on a risk-free asset. β is the exposure to market risk measured as the co-variance between the asset and the market (see Equation12), divided by the standard deviation of the market. The risk premium reflects the risk that cannot be eliminated by diversifying.

Damodaran further discusses some expansions of CAPM. There is the arbitrage pricing model (APM) which allows for several sources of market risk, introducing more betas. More on, it is the

macroeconomic multi-factor model, which puts more weight to macroeconomic risk.

All three models rely on the assumption that investors will only be rewarded for market risk, as idiosyncratic risk might be diversified away. Gordon and Shapiro derived their own way of finding the cost of equity capital (1956). By restructuring the Gordon model (Equation3), they found the cost of capital to equate $\frac{D_0}{P_0} + g$.

On the one hand, CAPM is clearly the industry favorite, arguably for its simplicity and clear intuition. On the other hand, CAPM does not hold up in empirical studies and are often implemented wrong (Blume & Friend,1973;Fama & French,2004).

2.1.5.1 Beta Beta (β) as defined by Damodaran (2016), is a standardized measure of market risk. It is formally defined as:

$$\beta = \frac{\text{Covariance of asset i with market portfolio}}{\text{Variance of the market portfolio}} = \frac{Cov_{i,m}}{\sigma_m^2} \tag{12}$$

A beta greater than 1 expresses more risk, while a beta less than 1 expresses lower risk. The standardized measure of market risk is the source of numerous errors in valuation methods (Fernández, 2004a,2007) and the source of criticism of the CAPM (Blume & Friend,1973;Fama & French, 2004).

Damodaran further expresses the relationship between an assets beta and the level of leverage. The relationship is summarized as

$$\beta_L = \beta_U[1 + (1 - t)D/E] \tag{13}$$

where β_L is the beta of the levered firm, β_U is the beta of the unlevered firm, t is the tax rate faced by the firm and D/E expresses the debt-over-equity ratio.

In a wide ranging cost-of-capital survey (Bruner, Eades, Harris, & Higgins,1998), many corporations admitted to using betas retrieved through companies like Bloomberg, S&P and Value Line, while some uses their own estimation. Most of these providers uses historical samples. Bloomberg additionally present an adjusted beta, which are suppose to be more forward looking. The adjusted beta is 2/3 of the estimated beta, plus 1/3.

2.1.5.2 Risk Premium The risk premium is simply put the excess return an investor demands for moving from a risk-less investment to an average-risky investment (the market portfolio) (Damodaran, 2016). Finding the right risk premium has long been a challenge for researchers, and has been termed the equity premium puzzle. It is a puzzle because there is yet to exist a model which accurately explains the gap between seamlessly risk-free assets and average equity return (Mehra & Prescott,1985;Weil,1989;Benartzi & Thaler,1995;Mehra,2003). It is also one of the many pit falls in valuation methods (Fernández,2004a,2007).

Damodaran (2016) outlines three methods for finding the equity premium: i. one can observe large investors like pension funds, ii. historical samples can be used, and iii. forecasting the equity premium. There are advantages and limitations of all methods. The most used however, is the historical sampling. This is in line with what several companies answered on a wide ranging survey on cost of capital (Bruner et al.,1998).

2.1.6 Cost of Debt

The cost of debt measures the cost to the firm related to borrowing funds in order to finance its assets. Optimally, it should reflect the default risk perceived by the lenders. The cost of debt is easier to obtain as it is observable in the market, for most firms, as the grading on the firms outstanding bonds. The grading of the bonds reflects the default risk and is then used to find the appropriated cost of debt. For firms with no outstanding bonds or non-graded bonds, the default risk needs to be estimated. It is also optional to use the yield to maturity on outstanding debt (Damodaran,2016).

2.1.7 Weighted Average Cost of Capital

Weighted average cost of capital (WACC) is, alongside CAPM, an industry favorite. WACC is a discount factor used in the valuation methods where the cash flow is to both equity and debt holders (Damodaran,2016). It incorporates the effects of the tax shield and leverage and is formulated as

$$WACC = \frac{D+E}{E} k_e + \frac{D+E}{D}(1-t)k_d \tag{14}$$

where k_e and k_d is the cost of equity and debt respectively. E and D is the amount of equity and debt, respectively, held by the firm, and t is the tax rate (Koller, Goedhart, & Wessels,2010). The vast majority of companies answered that they uses some version of WACC when conducting DCF valuation (Bruner et al.,1998).

Even though WACC is widely used and appreciated for its simplicity and clear intuition, it comes with a cost. Luehrman, in his guide to valuation for managers (1997), addresses some of the implications of WACC. First of all, it assumes a constant capital structure. Secondly, the value of all future tax shields are captured in the simple addition of 1 minus tax rate. WACC is also the source of several errors seen in equity valuation (Fernández,2004a,2007).

2.1.8 Terminal Value

A group of analysts from Goldman Sachs (Young et al.,1999) expresses the importance of the terminal value, stating that in some cases, terminal value (TV) accounts for 90% or more of the total value. In most DCF valuations, the analysts or researcher forecasts the cash flow for a specific number of years, then they add the TV, also called continuing value or steady state. TV is the value of all cash flow beyond the forecast years, where the company is expected to be in a steady growth (Damodaran,2012). Damodaran further explains three ways of calculating the TV: i. it is possible to value the assets of the company, estimating what someone would pay for the company in the terminal year, ii. using multiples to e.g. earnings in order to find the value in the terminal year, and iii. assume a steady growth rate of all future cash flows and then use a perpetual growth model.

2.2 Relative Valuation

Damodaran (2007) states that approximately 90% of equity research valautions and 50% of acquisition valuations use some sort of relative valuation. When conducting an empirical analysis on DCF valuation of highly leveraged transaction, Kaplan and Ruback (1995) found it useful to supplement the DCF analysis with information from relative valuation approaches. Fernández (2001) came to the same conclusion after conducting an extensive revision of multiples, a common relative valuation method. "A properly executed multiples analysis can make financial forecasts more accurate" (Koller, Goedhart, & Wessels,2005). The report from which the quote origin argues that multiples are powerful when used correctly, especially combined with a DCF analysis.

As oppose to the DCF approach, relative valuation is not about predicting the future in order to find the true intrinsic value. Rather, it is about relying on the market to estimate the appropriate price of a company. The basis of the valuation method is that investors pay the same price for companies with similar characteristics. It is possible to outline three crucial steps when applying relative valuation: i. find comparable assets in the market, ii. find comparable measures, and lastly, iii. adjust for differences across the assets (Damodaran,2007).

2.2.1 Peer Groups

In order to retrieve the appropriate value when using the market, the first step will be to find assets with similar characteristics. Damodaran (2007) define a comparable firm as one with similar cash flows, growth potential and risk. Nowhere in this definition is it stated that the comparable firm should come from the same industry, even though it is arguable the most common approach. Kaplan and Ruback (1995) uses companies from the same industry when they conduct their analysis, even though they recognize that in real life, two companies will rarely have the same cash flows and risk.

One possibility is to use official classification codes like Standard Industrial Classification (SIC) or Global Industry Classification Standard (GICS) to find 8-15 comparable firms and then use an average amongst these firms. These standards might be broad, and should be complement with more information e.g. the competitors defined by the company being valued (Koller et al.,2010).

2.2.2 Multiples

Next step is to find a common measure of value in the form of a multiple. The most common multiples are Price Earnings Ratio (PER) and Enterprise Value to Earnings Before Interest, Tax, Depreciation and Amortisation (EV/EBITDA) (Fernandez,2001). One of the common errors when using the relative valuation approach is to use multiples with a significant dispersion. This weakens the result and might lead to misleading values (Fernández,2004a,2007).

In an extensive analysis conducted by Liu, Nissim and Thomas (Liu, Nissim, & Thomas,2002), they conclude that forward looking multiples perform best, giving a fair value of the majority of companies included in their analysis and showing low levels of dispersion. More on, earnings based multiples are favorable. They are less dependent on capital structure, more difficult to manipulate and adjust for non-operating assets, especially EV/EBITA. (Koller et al.,2005,2010).

2.2.3 Adjust for Differences

The last step suggested by Damodaran (Damodaran,2007) is to adjust for differences across the peer group. He proposes three ways of adjusting for differences: i. subjected adjustments, ii. modified multiples, and iii. statistical techniques. It is especially the nonoperating items that needs to be adjusted, as they do not "generate EBIT(D)A" (Koller et al.,2005,2010).

2.3 Accounting Valuation

A third group of valuations models are called accounting valuation models. As oppose to the DCF models, accounting models seeks out to value a business by studying its balance sheet, rather than its income statement. The approach values the current assets separately, and adding them up to retrieve the value of the business (Damodaran,2007).

2.3.1 Book Value Based Approach

Fernández (2007) defines book value as the value of shareholders equity stated in the balance sheet, which also is the difference between total assets and liabilities. Book value is also used in an investment style called value investing, where the idea is to find companies who's market value is below its book value. The idea is quite simple and straightforward, but it is static and has limitations. It might work for mature companies with little risk and volatility (Damodaran,2007). The previously discussed Ohlson model and Feltham-Ohlson model (Section2.1.2) is a sort of extension of the accounting valuation approach where the book value is combined with forecasted earnings.

2.4 Option Pricing Model

Option pricing models (OPM) are one of the models Luehrman discusses in his guide to valuation for managers (1997). At first, OPM were used to estimate the value of financial instruments like warrants and stock options. It proved to be successful and it quickly got expanded to corporate valuation (Koller et al.,2010). It is especially useful when companies faces decisions like R&D investments or significant marketing decisions. OPM is especially useful when the performance of a company is dependent on an event happening, in which case the e.g. DCF method would

underestimate the value (Damodaran,2012). In an article from McKinsey & Company, Leslie and Michaels (1997) addresses the power of real option, especially when it comes to valuing flexibility. However, as OPM are not applicable in this case, further methods of option pricing will not be discussed.

2.5 Concluding Remarks

It is clearly several models that has not included in this literature review. However, the models discussed are perceived to be the most recognized and utilized models throughout the history of corporate finance. As discounted cash flow methods are clearly industry favorites, the valuation of Coca-Cola will be conducted, following the free cash flow to firm valuation method. Additionally, as multiples are powerful tools and straightforward of nature, it will be used to supplement the FCFF valuation.

3The Coca Cola Company

3.1 History

According to the company itself, the story of Coca-Cola started in Atlanta, 8th of May 1886, when Dr. John Stith Pemberton carried the first sample of the Coca-Cola syrup down to the local pharmacy where it was mixed with carbonated water and sold for five cents a glass. It was Frank Robinson, Pemberton's partner and bookkeeper who came up with the name (Coca-Cola,2021d).

Monroe Martin King paints a different picture of the origin of Coca-Cola (1987). In his article, King says that the sugar syrup was made in order to substitute the wine in his previous beverage, the Pemberton's French Wine Coca, when the city of Atlanta introduced the prohibition in 1886. The key ingredients to the beverage was leafs of the cola plants and the coca nut.

In a book by Andrew Smith (2013), the origin of Coca-Cola is aligned with the story told by King. Smith discusses further how the recipe ends up in the hands of a pharmacist and patent medicine manufacturer called Asa Candler, based in Atlanta. Asa Candler expanded the sales of the beverage and the Coca-Cola Company quickly grew. Having cocaine as an ingredient became problematic and it was gradually removed. It was not until 1929 that technology would allow for the total removal of cocaine from the beverage (Smith,2013;Hamblin,2013;Grinspoon & Bakalar, 1981).

In 1919, The Coca-Cola Company was bought by a group of investors led by Ernest Woodruff (Coca-Cola,2021a). The acceleration of the growth of the company is drastic. They keep expanding and becomes a well-known media figure. In 1955, Fanta Orange beverage, their second beverage type is introduced, and in 1961, Sprite, a lemon-lime drink is introduced (Coca-Cola, 2021b,2021c). Today, Coca-Cola have approximately 200 brands (AppendixB), with some of the most recognized beverages like Schweppes, Minute Maid and smartwater.

The marketing strategies of Coca-Cola have often been acknowledge and used as an example for different occasion. They are for example responsible for the modern depiction of Santa Claus. As a proof of good marketing, Coca-Cola have in some occasion been declared the strongest brand name in the world, and at least among the top ten most recognized brands (Keller,2000;Swant, 2020;Khan,2019;Statista,2021a).

3.2 Historical Performance

Figure 1: Daily Stock Prices

Coca-Cola Company first offered shares to the public in September 1919 at $40 per share. At the time, the company issued 600 000 shares listed on the New York Stock Exchange (NYSE). An investment of 3 shares of Coca-Cola would accumulate to approximately $1.483 million today (Healy,2020). The share have been through a series of adjustments. As a result, one share of Coca-Cola bought in September 1919 would result in 9.216 shares in July 2012 (Coca-Cola,2021f,2021g).

According to several sources, Coca-Cola was one of the companies which survived the great depression and recession without severe losses (The-Compound-Investor,2020;Cross,2020;of Hitting,2012). During the second World War, sugar rationing were imposed. This would hit Coca-Cola hard, if they had not lobbied the government into getting an exception from the rationing. More on, Coca-Cola promised every soldier the opportunity to purchase a Coke for a nickel. This was not possible cost-wise for the company. However, it all got paid for by the US (Blanding, 2011).

Before the year 2000, the stock had its peak in July 1998. The reason was several years of steady growth. However, in July the same year, Coca-Cola notifies Wall street of low expected performance for the rest of the year. In their 1999 annual report, they blame the reduced performance on general unrest in the world economy, leading to currency fluctuations. Additionally, they had made some reconstructions and investments overseas (Coca-Cola,2000). This is also reflected in their earnings before tax and interests, seen in AppendixA.

It is possible to argue that Coca-Cola is not related to internet stocks, however, the stock prices fell as the Dot Com bubble burst in March 2000. The price of one share of Coca-Cola also dropped significantly during the financial crisis of 2008-2009. However, they recovered in a relatively short amount of time.

3.3 Present Performance

Coca-Cola define themselves as an all beverage company. They further divide their business in finished products and syrups & beverage concentrates. A table of selected products and their variants are displayed in AppendixB. Coca-Cola has partnerships with, but not limited to, Monster Beverage Company and Aujan J.S.C.. They further divide their operation in the following segments: i. Europe, Middle East and Africa, ii. Latin America, iii. North America, iv. Asia Pacific, v. Global Venture, vi. Bottling Investments, and vii. Corporate.

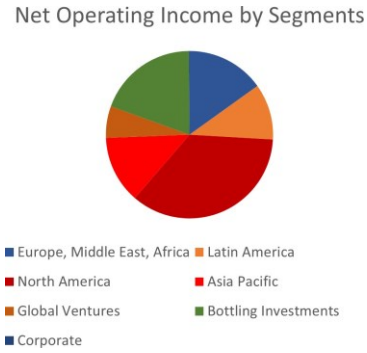

Figure 2: Net Income by Segments

Coca-Cola, and the industry it operates in, was significantly impacted by the ongoing pandemic. Something James Quincey, Chairman & Chief Executive Officer of the Company, addresses in their presentation of the 4th quarter results of 2020 (the presentation is found on the company's website). Mr. Quincey further recognize several difficulties in their over-seas markets.

In the Company's 2020 10-K form (Coca-Cola,2021e), the impacts of the pandemic are, among else, lower sales as a result of establishments closing, lower demand for trademark products such as Coca-Cola, and disruptions of the Company's production and distribution processes.

This is reflected in their financial statements reported in their 10-K form. The Company obtained revenues equal to $33.014 million, operating income of $8.997 million, and consolidated net income of $7.768 million. Compared to 2019, it is a decrease of 11,4, 10,8 and 13,5 percent, respectively. Additionally, the gross profit margin experienced a decrease to 59,3 percent, from 60,8 percent in 2019, showing a decrease in profitability.

Finished drinks accounted for 56% of net operating revenues, while syrup and concentrates accounted for 44%. The Company paid out $7.047 million in dividends in 2020, which is an increase from $6.845 million from 2019. Their dividend yield has been significantly higher relatively to recent years (AppendixC). Despite the pandemic, the Board of Directors chose to increase it yet once more, showing their confidence in the Company (Coca-Cola,2021e).

3.4 Balance Sheet

According to the 10-K reports from 2016, 2018 and 2020, the total assets of Coca Cola are dominated by liabilities. The top three assets are equity method investments, current assets and goodwill.

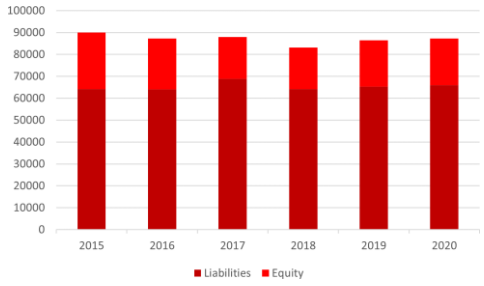

Figure 3: Total Assets

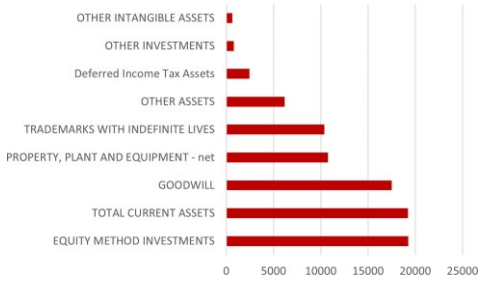

Figure 4: Asset Distribution

Equity method investments consists of the Company's ownership in Monster, AC Bebidas, and Coca-Cola European Partners Plc., and more. It contributed with $4.122 millions to common shareowners in 2020. Total current assets includes cash, cash-reserves, marketable securities, inventories and more (AppendixF.

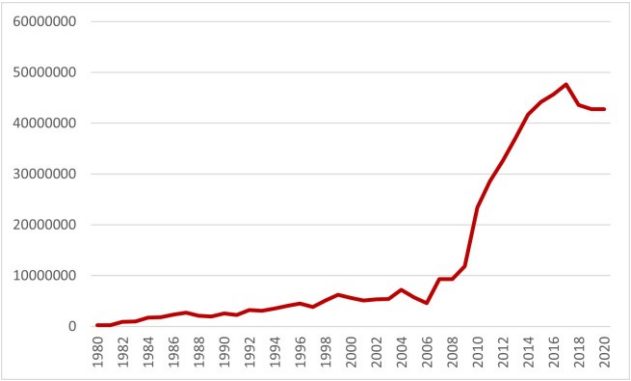

Figure 5: Debt

According to data retrieved from Refinitive Eikon, the amount of total debt drastically increased in approximately 2010. As discussed in their 2010 10-K form, this was a result of the acquiring of the North American Business of Coca-Cola Enterprise Inc. In the following years, Coca-Cola continues to take on debt.

Even so, they have a A+, A and A1 rating from S&P Global Ratings, Fitch Ratings and Moody's, respectively. The three rating agencies emphasises the market value of Coca Cola, as well as their cash reserves. However, they mention the pandemic and its complications (Lozada,2020;Fitch-Ratings,2020;Moody's,2021).

4Industry

4.1 Overview

As mentioned in Section3.3, Coca Cola have products within sparkling soft drinks, water, sports drinks, juice, dairy and plant-based beverages, tea and coffee, and energy drinks. Overall, their operating in the non-alcoholic beverage industries. According to data retrieved from Wharton Research Data Services (WRDS) 08.03.21, Coca-Cola is classified as 312111 and 2086 based on the North American Industry Classification Code and Standard Industry Classification Code, respectively. These are defined as Soft Drink Manufacturer, and Bottled and Canned Soft Drinks. However, this definition is too narrow, as it excludes e.g. the coffee and tea products.

A lot of power lies with the consumer in the beverage industry. As a result, the most important drivers of the industry are consumer preferences, both in taste and regarding health and environmental concerns discussed more in Section4.3. Therefore, market participants needs to invest in product development, advertising and technology, among else.

4.2 Competition

The market share of the US soft Drink Industry, Coca-Cola's largest segment, is depicted here. The overall beverage industry is highly competitive with pressed margins. PepsiCo is defined as their main competitor, with others being Nestlé, Keurig Dr. Pepper and Heineken Holdings, to name a few (Coca-Cola,2021e). In the S&P 500 Soft Drink Sub Index, there is only Monster Beverages, PepsiCo and Coca-Cola. In the Dow Jones US Soft Drink Index, Dr. Pepper and National Beverage Corporation is also included. In the STOXX Europe 600 Food and Beverage Industry, companies like Carlsberg, Heineken, Nestlé, and others are included (data retrieved through Refinitive Eikon).

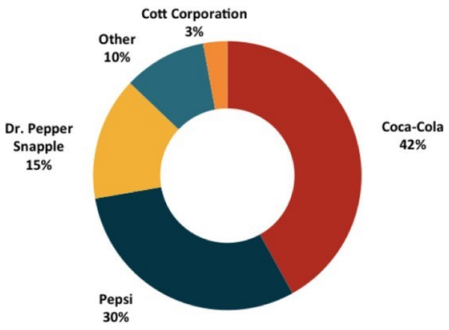

Figure 6: US Soft Drink Market Share

4.3 Industry Risk

The beverage industry is facing a decrease in demand as a direct impact of the Covid-19 pandemic. As several countries are forbidding gathering of several people and larger sporting events, and closing restaurants, the consumption of soft drinks are critically decreasing.

Besides the Covid-19 pandemic, the most significant risk faced by the beverage industry is the raising health and environmental concern of the general public. There have been research highlighting the damaging effect on the consumers health, when soft drink consumption are too high. High consumption of sugary soft drinks have been proven to lead to obesity and other health concerns like diabetes (Vartanian, Schwartz, & Brownell,2007).

As a result of raising health concerns, there has been a decrease in soft drink consumption in the US, and in many other markets where Coca-Cola operates (Kit, Fakhouri, Park, Nielsen, & Ogden,2013;Nielsen & Popkin,2004). The result has been a shift in development of low-sugar, or calorie-free soft drinks.

However, even these diet drinks have been under the loop. There has been research claiming that artificial sweetened soft drinks are not so healthy as consumers are led to believe. It is important to note that there are not consensus among researchers (Aune,2012;Jacobs,2019).

The environmental concern of the public is highly related to the plastic waste issue faced by the world. In a report published by Oceana (Schroeer, Littlejogn, & Wilts,2020), it is stated that between 21 and 34 billion bottles made out of PET ends up in the ocean. Other research shows that the use of plastic today is not sustainable. Soft drink manufacturers have started to take action, but there is a long way to go (Rigamonti et al.,2014;Business-Insider,2020;Walker-Morris,2019; Hopewell, Dvorak, & Kosior,2009).

Related to the raising concerns among the public are the risk of legal and regulatory matters. There are risks related to increase in taxes, both regular income tax and taxes on sugary drinks. Furthermore, there are risks related to regulations of packaging, especially concerning plastic bottles.

Market participants that are impacted by the regulations have been observed to engage in corporate political strategy, influencing the policies and using reformulation as a strategy to handle the health concerns (Scott, Hawkins, & Knai,2017).

5Macroeconomic Overview

The overall state of the economy has a large impact on both the industry and the company, thus the valuation process as well. The macroeconomic factors that impacts Coca-Cola are not limited to the ones discussed in this section, but they are deemed important.

5.1 Covid-19 Pandemic

The most influential factor today is the ongoing pandemic. As the virus spread over the world, countries closed restaurants, bars and clubs, cancelled larger events and celebrations, and closed their boarders, to name a few of the initiated efforts. There were few industries that were not severely damaged by the virus outbreak. In a research done by S&P Global Market Intelligence (Hayden & Kumar,2020), they classify airlines, leisure facilities, oil and gas drilling, auto parts and equipment, and restaurants as the five industries most impacted by Covid.

On the other hand, specialized REITs, property and casualty insurance, multi-line insurance, life and health insurance and industrial REITs are classified as the five industries that are the least impacted by Covid. Many countries regained hope as the first wave was over. However, when the second wave hit, a new lockdown was initiated and the economy took another hit. Then vaccination started and a more positive outlook emerged.

The pandemic has caused many firms to restructure, significantly downsize, and in the worst cases, declare bankruptcy. Many countries have been experiencing a rise of unemployment (Nicola et al.,2020). Some of the other results of the pandemic are related to health conditions. With social distancing, cancelled events, and restrictions of sports and other physical activities, both mental and physical health have been effected (Liang et al.,2020;Tison et al.,2020). More on, the long term effects are not clear yet. Even with vaccinations of the public, there will be some time before the world is back to normal.

5.2 Inflation

Figure7shows the historical inflation from different regions where Coca-Cola operates. It is possible to observe high volatility in the early 1990s, as well as around the financial crisis 2008-2009. In the last 4 years towards 2019, the inflation seems to stabilize between 1 and 3 percent. Figure8shows the inflation in the United States from the same period. Similar patterns can be observed, with a stabilization around 1.5 percent (World-Development-Indicators,2021). Inflation are influencing the prices of products sold by Coca-Cola and therefore have an impact on the performance of the Company. An increase in inflation should lead to an increase in prices.

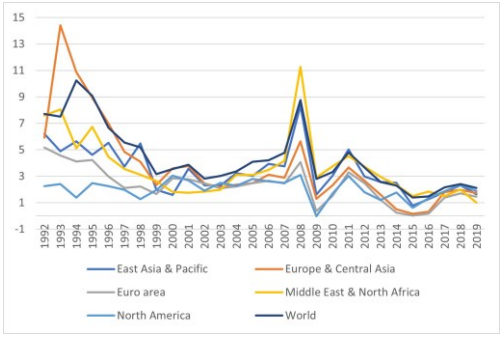

Figure 7: Historical Inflation

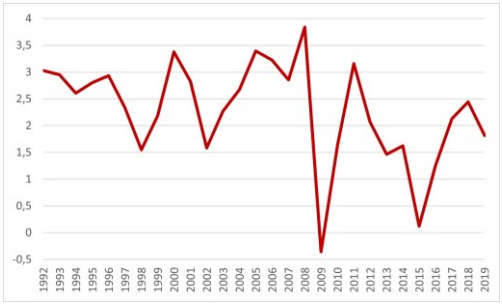

Figure 8: Historical US Inflation

In terms of future outlook, there are several factors to consider. Emmanuel and Nicholas Apergis (Apergis & Apergis,2020), study the inflation expectation through US inflation swaps. They found evidence pointing to a positive impact on the inflation, in regards to Covid-19. Predictions of high inflation can be found elsewhere as well. However, according to the CPI in December, US inflation in 2020 was estimated to be 1.4 percent (Irwin,2021).

On the other hand, some are claiming that inflation during the pandemic is misleading. The reason is that there are two offsetting effects. The prices of e.g. airline tickets have decreased severely, whereas the prices of groceries are rising (Wolfers,2020). In their economic projections from March 2021, PWC forecasts inflation levels which are summarised in Figure9(2021).

Inflation	2020	2021	2022	2023-2027
Eurozone	0,30 %	0,90 %	1,20 %	1,70 %
United States	1,30 %	1,70 %	1,90 %	2,20 %

Figure 9: PWC Inflation Projections

5.3 Gross Domestic Product

Figure10shows the historical gross domestic product (GDP) for certain regions where Coca-Cola operates, and Figure11shows the historical GDP in the United States, from 1992 to 2019, in US dollars (World-Bank,2020). It is possible to observe steady growth in all regions, with the slowest growth belonging to the Middle East and North Africa region.

In the flagship report of the World Bank Group, "Global Economic Prospect" (2021), the GDP of the world is estimated to have decreased by 4.3 percent compared to 2019 values. The decrease in GDP of the United States are expected to be 3.6 percent, compared to 2019 values.

In their report, the World Bank Group further discusses potential future scenarios. These future scenarios are partly based on previous average country specific recessions. In these scenarios, the world GDP will not fully recover until 2025. The International Monetary Fund (IMF) have projected a more swift recovery of the world economy (IMF,2021). They expect the world economy to be back at 2019 levels before the fourth quarter of 2021.

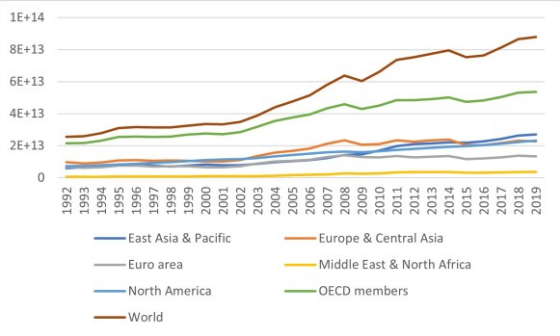

Figure 10: Historical GDP

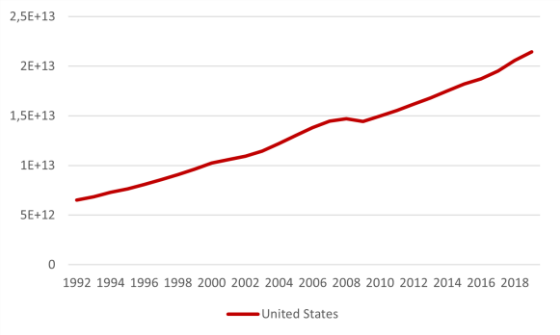

Figure 11: US Historical GDP

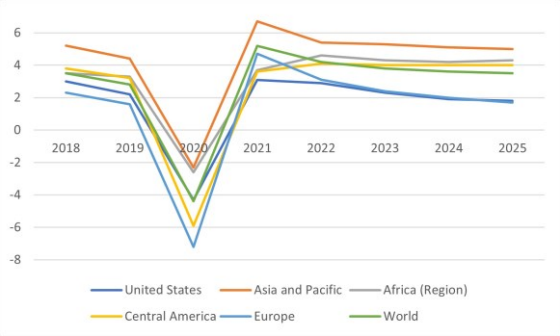

Figure 12: GDP Projections

6Discounted Cash Flow Valuation

As discussed in the literature review, there will be used a discounting cash flow method, which will be complemented with a relative valuation. 2015-2019 will be the base years of the valuation. The forecast will be from 2021 to 2025. It is reasonable with a five-year forecast, as the Company had relatively steady growth in the years before, in most segments. 2020 is purposely excluded from the explicit period, as it is unreasonable to base forecasts on a year which is so severely impacted by the ongoing crisis. Rather, the recovery will be incorporated into the analysis.

6.1 Revenues

The Company's revenue can roughly be split in two: i. concentrates, and ii. finished products. It is further possible to divide into segments: Latin America, Asia Pacific, Europe, Middle East & Africa, Bottling Investments, and North America. From the Company's 10-K forms, revenues in the explicit periods were distributed as displayed by this graph:

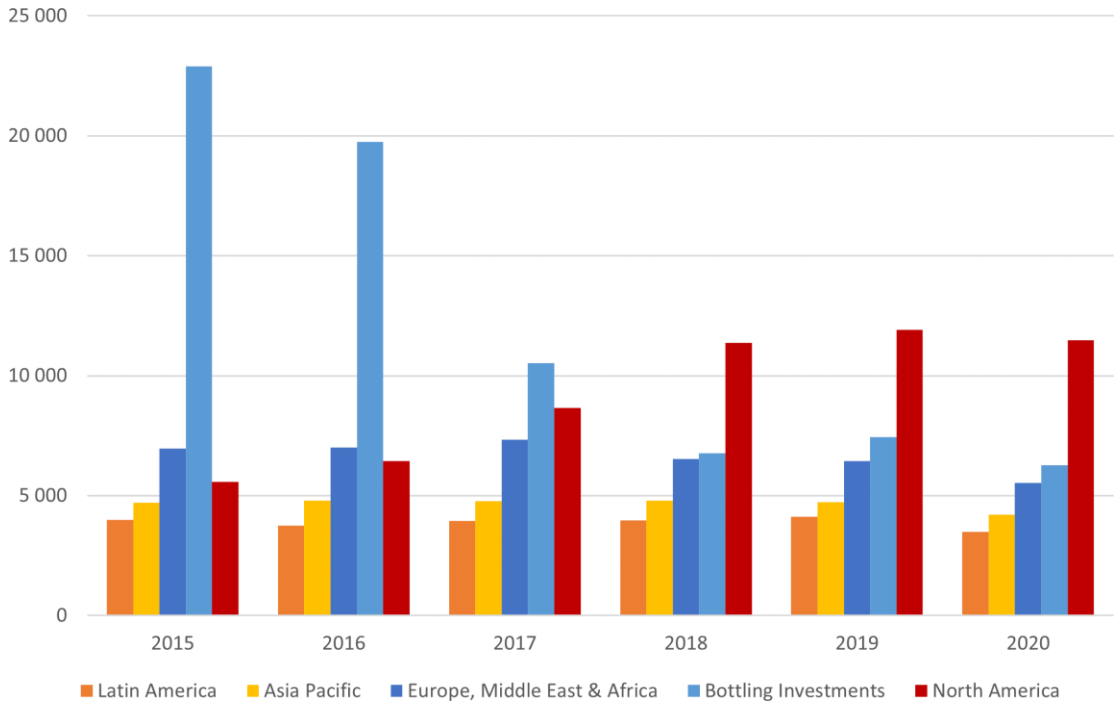

Figure 13: Revenues

Coca-Cola has, since 2004, invested a significant amount in bottling operations in order to re-franchise and improve processes. The refranchising was finished in 2018, and as a result, revenues from Bottling Investments, and thus finished products, have declined. Now, most of the revenue are coming from the concentrate business, which is included in the geographical segments. Intentionally omitted from the graph above is the Global Ventures and Corporate segments. Revenues in the Global Venture segment are derived from Costa, innocent and doğadan, as well as fees earned from the arrangement with Monster Beverages. The segment was omitted from the graph as it was formed in 2019. The Corporate segment are mostly related to strategic initiatives and improvements of key transnational processes.

The key drivers of revenues are the price change, change in products and packages sold, and the change in channel and geographical location for the sales. Some risks related to these factors were discussed in Section4.3, including the shift in health and environmental concerns. Even so, unit cases sold have been steadily increasing, see Figure14. It is reasonable to say that Coca-Cola has, and will continue to keep up with the trends, which will secure their growth and market share.

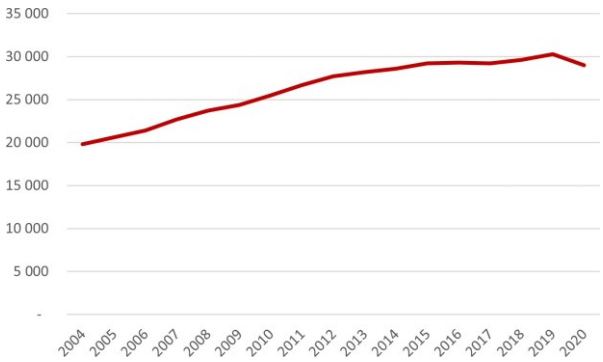

Figure 14: Unit Cases Sold

The Company are investing in, and expecting growth from emerging markets. A significant portion of future growth should come from countries from e.g., Latin America and Asia Pacific. It is reasonable to assume that these markets, in the long run, should converge against the revenue levels of Europe, Middle East & Africa.

The ongoing pandemic is expected to have most implications on the revenues in the first half of 2021. During this time period, vaccines are expected to be widely distributed and the economies should thus start opening up again. However, there is a lot of risk related to these assumptions. Lately, new rounds of lockdown, uncertainty related to vaccines and increasing numbers of infections are troubling economies around the world. As discussed in Section5, how fast the recovery from Covid-19 will be is disputable.

Another difficulty is the impact of currency fluctuations, which has negatively impacted the operating revenues of the Company in the latest years, especially during 2020. Forecasting exchange rates is beyond the scope of this dissertation. The effects of the exchange rates are expected to be minimized by the Company's hedging strategies and reflected in past earnings.

In order to forecast revenues, two scenarios were developed (D).

6.1.1 Bear Scenario

In the bear scenario, Coca-cola is not able to capture the growth of emerging markets, nor are they able to keep with consumer preferences and rising health concerns. The growth rates for the different segments are displayed in the table below.

Bear Case		
Segment	Source	Growth
Europe, Middle East and Africa	Historic CAGR	-1.58%
Latin America	Historic CAGR	0.59%
North America	(IndustryArc,2021)	2.50%
Asia Pacific	Historic CAGR	0.07%
Global Ventures	(GlobeNewswire,2020)	2.90%
Bottling Investments	Historic CAGR	1.81%
Corporate	Historic CAGR	1.80%

Most of the growth rates are computed as the CAGR over the base years. However, in some cases, these estimates were deemed too optimistic for the bear case, and CAGR estimates made by certain research facilities were used instead.

Europe, Middle East and Africa is a segment which is difficult to measure as it spans both developed and emerging markets. Should Coca-Cola fail on the aforementioned aspects, then a negative growth rate seems appropriate.

North America is Coca-Cola's largest segments. Revenues, even in a bear scenario, is not expected to slow down significantly, but might be hit by changes in consumer preferences and rising health concerns.

Global Ventures is another difficult segments as it was formed not so long ago. It consist of, as previously mentioned, income from Costa, innocent and dogadan, as well as income from Monster Beverages. It is possible to view this segment as an attempt to keep up with consumer preferences and health concerns, as the products in this segment are mostly organic and healthy. Therefore, even in a bear scenario, it is expected to grow.

6.1.2 Bull Scenario

In the bull scenario, Coca-Cola is expected to capture growth in the emerging markets, harvest the benefits of refranchising and strategic initiatives, as well as keep up with consumer preferences and secure their market share.

Bull Case		
Segment	Source	CAGR
Europe, Middle East and Africa	(Forecast,2021)	3.10%
Latin America	(Statista,2021b)	3.50%
North America	(Statista,2021c)	5.21%
Asia Pacific	(Statista,2021d)	5.60%
Global Ventures	Historic CAGR	11.01%
Bottling Investments	Historic CAGR	6.47%
Corporate	(IndustryArc,2021)	2.50

As seen from the table above. CAGR from different research facilities are utilized as growth rate for revenues for 2021-2025. It is expected that Coca-Cola will maintain its level of market share which is severe enough to state that it will follow the trend of the market and these growth rates can be used.

For Global Ventures, CAGR is measured as a weighted CAGR of the companies included in the segment. The different CAGR estimation can be seen in Figure15. How much each contributed to the was not defined specifically in any public documentation from Coca-Cola. However, indications could be observed and the weights are 0.6 for Costa Coffee, 0.3 for Innocent and 0.1 for Monster. Revenues for dogadan was not possible to obtain. However, it was not the largest contributor.

Innocent	
CAGR (2015-2019)	15 %
Costa Coffe	
CAGR (2015-2019)	9 %
Monster	
CAGR (2015-2019)	11 %

Figure 15: Global Ventures CAGR

A similar procedure was used to find the CAGR for Bottling Investments. Coca-Cola's 7 largest Bottling Investment investees was used, and gross income was used as a proxy for revenue as it could not be obtained. CAGR for gross income and weights can be seen in Figure16.

Company	Gross Income	Fair Value (10-K)	Fair Value % of total
Cocca-Cola HBC	-1,18 %	2657	11,56 %
Coca-Cola Amatil	0,74 %	2222	9,67 %
Coca-Cola FEMSA	12,41 %	2657	11,56 %
Coca-Cola İçecek	20,04 %	440	1,91 %
Coca-Cola Japan	6,65 %	522	2,27 %
Coca-Cola Consolidated	8,34 %	661	2,88 %
Coca-Cola European	-1,73 %	4383	19,07 %

Figure 16: Bottling Investments CAGR

6.1.3 Forecasting Revenues Result

The two scenarios are weighted as 50/50. However, the growth rates used in the bull scenario are large enough for the forecast to be considered optimistic. Forecasted revenues can be viewed in Figure17.

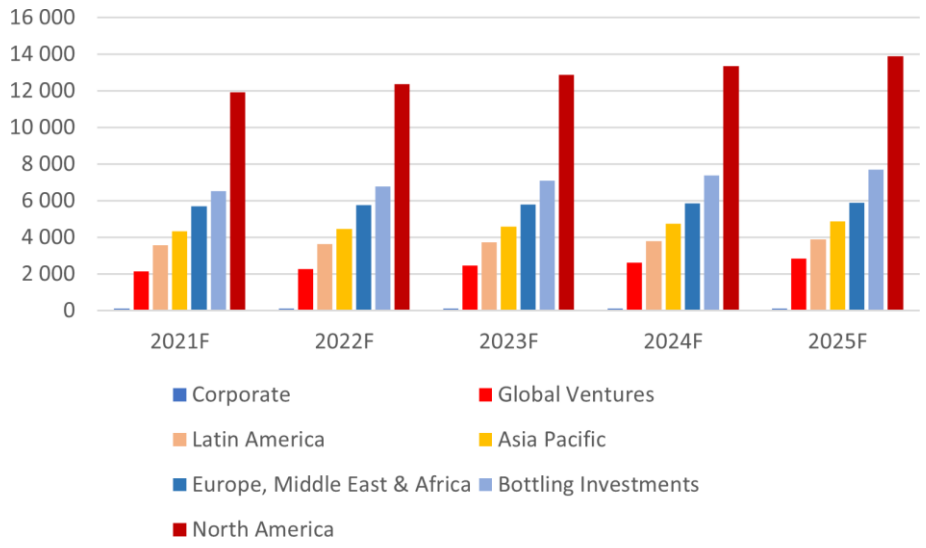

Figure 17: Forecasted Revenues

With total revenues being:

Free Cash Flow	2021F	2022F	2023F	2024F	2025F
Revenues	34 266	35 398	36 591	37 851	39 180

Figure 18: Forecasted Total Revenues

These levels of revenues are expected to materialize as it balances the possibilities of not being able to capture growth in emerging market, losing sales as a result of rising health concerns as well as reaping benefits of refranchising and strategic initiatives. Regarding the set back in 2020, growth rates are set so that the Company should be back on 2018 levels by the end of 2021, which is deemed to be a reasonable time span for recovery.

6.2 Operating Expenses

6.2.1 Cost of Goods Sold an Selling, General & Administrative Expenses

Cost of goods sold (COGS are costs related to the production and selling of the Company's products. The main input for Coca-Cola is water. The Company have yet to experience any shortage of water supply. Even though it is a real life threat to the business, it will be assumed that Coca-Cola will not experience any shortage of water. Other than water, the most important ingredient is sweeteners and other taste adding material. However, forecasting raw material prices is beyond the scope of this dissertation, and COGS will be estimated as a ratio related to revenues.

Selling, general & administrative expenses (SG&A) are related to e.g., marketing and operating expenses related to selling and distributing the Company's products. The main driver of both COGS and SG&A is revenues. Past values and ratios related to revenues are displayed in Figure

Cost Brakedown	2015	2016	2017	2018	2019
Revenues	44 294	41 853	35 410	34 300	37 266
Cost of Goods and Services Sold	17 482	16 465	13 255	13 067	14 619
/Revenues	39,47 %	39,34 %	37,43 %	38,10 %	39,23 %
Selling, General and Administrative Expense	16 427	15 370	12 654	11 002	12 103
/Revenus	37,09 %	36,72 %	35,74 %	32,08 %	32,48 %

Figure 19: Cost Breakdown

2020 is purposely excluded as costs were abnormally low as a result of the uncertainty related to the Covid pandemic. Both COGS and SG&A are expected to revert back to the historic values and the forecasted ratios are thus the the average of ratios from 2015-2019 equal to 38.71% and 34.82% for COGS and SG&A respectively.

6.2.2 Other Operating Cost and Expenses

Cost Brakedown	2015	2016	2017	2018	2019
Other Cost and Expense, Operating	1 657	1 371	1 902	1 079	458

Figure 20: Other Operating Cost and Expenses

Other operating cost and expenses have previously been driven by impairment charges and costs incurred due to the refranchising. Since impairment charges are a decrease in goodwill, other op-

erating cost and expenses are increasing when goodwill is decreasing. However, in the forecasting of Coca-Cola's balance sheet, goodwill is held constant as it is unreasonable to predict, as well as impairment charges, and are therefore expected to be zero.

Besides impairment charges, other operating cost and expenses are related to strategic initiatives, in addition to the valuation of the current assets of Coca-Cola which is valuated using a marked-to-market method. This makes the operating cost and expenses highly correlated with total current assets. Therefore, the forecasted ratio is computed as the average of ratios from 2015-2019 equal to 3.99%.

6.3 Capital Expenditures

Capital Expenditures	2015	2016	2017	2018	2019
COGS	17 482	16 465	13 255	13 067	14 619
PPE - Gross	22 354	21 256	16 449	16 245	18 921
PPE - Net	12 571	10 635	8 203	8 232	10 838
Depreciation	1 970	1 787	1 260	1 086	1 365
CAPEX	-2 553	-2 262	-1 675	-1 548	-2 054

Figure 21: Historical Capital Expenditures

Capital expenditures (CAPEX) is found as: $CAPEX_t = Net\ PPE_t - Net\ PPE_{t-1} + Depreciation_t$
Net Property, plant and equipment (PPE) and gross PPE are mainly driven by cost of goods sold, and is forecasted as a ratio to COGS, of approximately 69.3% and 127%. Depreciation is again correlated with gross PPE, and is forecasted as a ratio to PPE of approximately 7.76%. Since PPE is driven by COGS, and depreciation is driven by PPE (and follows a straight-line method), it is considered a reasonable forecast of capital expenditures. The results can be seen in Figure22

Capital Expenditures	2021F	2022F	2023F	2024F	2025F
PPE - Gross	16 842	17 398	17 985	18 604	19 258
PPE - Net	9 192	9 495	9 816	10 153	10 510
Depreciation	1 307	1 351	1 396	1 444	1 495
CAPEX	1 177	1 654	1 716	1 782	1 852

Figure 22: Capital Expenditures

6.4 Net Working Capital

The working capital is defines as the difference between operational current assets and current liabilities, and the net working capital (NWC) is the difference from one period to another. However,

this definition excludes some crucial items like deferred income tax assets and liabilities.

Working Capital	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F
Accounts Receiveble	3 941	3 856	3 667	3 396	3 971	3 144	3 344	3 454	3 570	3 693	3 823
Investories	2 902	2 675	2 655	2 766	3 379	3 266	2 563	2 660	2 748	2 840	2 938
Prepaid Expenses and Other Assets	2 752	2 481	2 000	1 962	1 886	1 916	1 963	2 028	2 096	2 168	2 245
Deffered Income Tax Assets	0	0	330	2 667	2 412	2 460	2 828	2 832	2 948	3 069	3 196
Accounts Payable and Accrued Expenses	9 660	9 490	8 748	8 932	11 312	11 145	11 468	11 801	12 143	12 496	12 858
Accrued Income Taxes	331	307	410	378	414	788	788	1 091	1 091	2 163	2 163
Deffered Income Tax Liabilities	4 691	3 753	2 522	1 933	2 284	1 833	2 279	2 283	2 376	2 474	2 576
Working Capital	-5 087	-4 538	-3 028	-452	-2 362	-2 980	-3 839	-4 201	-4 248	-5 362	-5 396
Net Working Capital		549	1 510	2 576	-1 910	-618	-859	-362	-47	-1 113	-34

Figure 23: Net Working Capital

Values from 2015 to 2019 are retrieved from the 2020 10-K form. Both accounts receivable, inventories and prepaid expenses & other assets (PEOA) are driven by revenues. However, inventories and PEOA are correlated with a one-year lag. Therefore, for accounts receivable, forecasted ratio is the average ratio from year 2015-2019. For inventories and PEOA, values in time t are divided by revenues of time t-1. The average of these values is then used as the forecast ratio.

Accounts payable are driven by COGS, and the forecast ratio is estimated using the average of ratios from 2015-2019. Accrued income taxes are stated in the 2020 10-K.

Deferred income tax assets and liabilities are driven by the value of the Company's equity method investees, PPE, other liabilities and trademarks with indefinite lives, with a one-year lag. The forecast ratio is thus found in the same way as for inventories and PEOA.

As seen in the figure above, the working capital is strictly negative and decreasing, which has a positive cash flow effect, but it is not good for liquidity. The main reason is that accounts payable are outgrowing the assets. The growth is aligned with the growth from 2015-2019. The latest high values are related adjustments in payment terms and implementation of supply chain finance (SCF) program where suppliers can sell their receivables. NWC is fairly stable except one jump in 2024 coming from accrued income taxes which is retrieved from the Company's 2020 10-K.

It is possible to assume that a large and mature company such as Coca-Cola should have a positive working capital. However, Coca-Cola has experienced negative working capital earlier.

6.5 Weighted Average Cost of Capital

The discounting factor that is used in this valuation is the weighted average cost of capital (WACC). This is because it takes into account both the equity and the debt. Furthermore, Coca-Cola is expected to have an arguably constant debt to equity ratio which makes WACC an appropriate discounting factor. The result is a WACC equal to 4.02%.

Calculations	
Risk-free	1,63 %
Beta	0,616
Risk Premium	4,56 %
Cost of Equity	**4,43 %**
Tax rate	20,22 %
Cost of debt	**2,09 %**
E/V	0,85
D/V	0,15
WACC	**4,02 %**

Figure 24: WACC Calculations

6.5.1 Cost of Equity

In order to calculate the cost of equity, CAPM was utilized. and the first input is the risk-free rate. The measure used in this valuation is the bond yield on a ten year US treasury bond. All items are given in USD, and treasury bonds yields in other areas where Coca-Cola operates are currently negative.

The Beta is a 5 year, monthly beta retrieved from Thomson Reuters. 5 year, monthly beta is chosen because betas spanning a longer time horizon, and with higher frequencies, are sources of bias' (Gilbert, Hrdlicka, Kalodimos, & Siegel,2014). The risk premium is retrieved from Damodarans homepage (2021), which is a implied equity risk premium. All estimations were retrieved on 08.05.21.

6.5.2 Cost of Debt

Cost of debt is driven by the bonds which the Company has issued, as they have no other outstanding long-term debt. In order to calculate the cost of debt, the yield to maturity (YTM) of each bond was retrieved. For the bonds denoted in foreign currency, the spreads are calculated and then added to the US risk free-rate and weighted according to the outstanding amount, see Figure25 (AppendixE). The final cost of debt is equal to 2.09%. The low cost of debt is reflected in the ratings of A1 and A+ from S&P and Moody's, respectively.

Currency	Average Yield	Total Outstandig	Weights	Spread
Swiss Franc	-0,22 %	1 235 042 266	0,03	0,03 %
Euro	0,49 %	13 930 455 000	0,35	0,73 %
Australian Dollar	0,81 %	426 855 000	0,01	-0,86 %
U.S. Dollar	2,08 %	22 955 064 000	0,58	0,46 %

Figure 25: Cost of Debt Input

6.5.3 Market Value of Capital

The market value of the Company's equity is calculated as their number of outstanding shares times the market price, summaries in Figure26. There were no available information about outstanding warrants and are therefore assumed to be zero. The market value of the debt is assumed to be the sum of bonds and leases. The bonds are listed, and the market value is retrieved through Thomson Reuters. The value of leases is retrieved from their 20202 10-K report seen in Figure27and discounted by the cost of debt. Market value of debt is then equal to approx $41.75 million. Effective tax rate has been stable over the forecasting period and are expected to be constant at the five year historic average.

Market Value EQ - 08.05.21	
Price	54,51
Shares Outstanding	4 302 000
Market Value	234 502 020

Figure 26: Market Value of Equity

Lease Obligations	2020	2021	2022-2023	2024-2025
Sum	1 876	349	562	397

Figure 27: Lease Obligations

6.6 Free Cash Flow Results

Variables above goes as input into the free cash flow to firm computation, observable in Figure28.

Free Cash Flow	2021F	2022F	2023F	2024F	2025F
Revenues	34 266	35 398	36 591	37 851	39 180
[-] Cost of Goods and Services Sold	13 266	13 704	14 166	14 653	15 168
Gross Profit	21 001	21 694	22 426	23 197	24 012
Selling, General and Administrative Expense	11 931	12 325	12 741	13 180	13 642
Other Cost and Expense, Operating	1 149	1 187	1 227	1 269	1 314
Operating Income	7 920	8 182	8 458	8 749	9 056
NOPLAT	6 319	6 527	6 748	6 980	7 225
Depreciation	1 346	1 391	1 438	1 487	1 539
[-] CAPEX	-1 177	- 1 694	- 1 758	- 1 825	- 1 896
[-] Net Working Capital	1 741	341	1 292	494	309
FCF	8 229	6 565	7 720	7 136	7 177

Figure 28: Free Cash Flow to Firm

The result is a free cash flow which decreases first and then stabilizes around 7,000. A high cash flow in 2021 is expected as Coca-Cola was able to reduce costs during the pandemic, and are

expected to keep costs low during 2021. NWC is then the main driver of changes in the cash flow for the rest of the forecast period, which is discussed in Section6.4.

6.6.1 Terminal Value

To estimate a terminal value (TV), Gordon growth model was used with WACC as discount factor and 1.5% as steady growth rate. The steady growth rate is chosen considering the maturity of Coca-Cola, previous growth in sales and revenues, as well as changes in consumer preferences discussed in Section4.3. The steady growth rate is also considered to include the global growth potentials.

As previously declared, TV has a significant impact on the equity valuation. Discussed more in Section6.6.2, a change in growth rate changes the final target price remarkably.

6.6.2 Sensitivity Analysis

From Figure29, it is possible to observe that the levels of WACC does not have a great impact on the final target. Terminal value on the other hand, have a grater impact. The reason for this might be that the forecast is only for five years, and the free cash flow is not too large.

Terminal value, as discussed in Section2.1.8, have a significant impact on the valuation, as can be seen in the figure below.

		WACC				
	56,48	6,03 %	5,03 %	4,03 %	3,03 %	2,03 %
	0,50 %	38,44	38,64	38,85	39,07	39,29
	1,00 %	45,73	45,93	46,14	46,35	46,58
TV	1,50 %	56,04	56,24	56,45	56,67	56,90
	2,00 %	71,77	71,97	72,18	72,40	72,62
	2,50 %	98,67	98,87	99,08	99,30	99,52

Figure 29: Sensitivity Analysis

In Figure30, is a sensitivity analysis of the terminal value growth and the weights assigned to the bull scenario.

	Weights - Bull					
	56,48	0,3	0,4	0,5	0,6	0,7
	0,50 %	38,12	38,50	38,87	39,25	39,63
	1,00 %	45,28	45,72	46,16	46,60	47,05
TV	1,50 %	55,41	55,95	56,48	57,01	57,54
	2,00 %	70,87	71,54	72,21	72,88	73,55
	2,50 %	97,30	98,20	99,11	100,01	100,92

Figure 30: Sensitivity Analysis

These two critical assumptions makes the target price range from ~38 to ~100. In the valuation, the bull scenario and bear scenario is weighted at 0.5 each. However, the CAGR in the bull scenario is significantly higher and the valuation is therefore deemed to me optimistic. This is because the market generally moves upwards, and a large company as Coca-Cola is expected to follow. More on, Coca-Cola is expected to increase revenues from emerging markets in future scenarios, as well as reap benefits from the re-franchising.

The terminal growth is set at 1.5%, which is not far away from the inflation target. Coca-Cola is arguably a mature company, and even though they are expected to grow, it is a fair assumption that they will not outgrow the market.

6.7 Final Target

Discounting the FCFF at WACC, adding the TV and subtracting debt from the enterprise value gives a equity value of 226 897 million USD, seen in Figure31.

Discounted Value	32 755
Terminal Value	240 544
Enterprise Value	273 299
Equity Value	231 549
Fair Price	**53,82**

Figure 31: Final Target

Dividing by outstanding shares gives a fair price, and final target of $53.82. The valuation is considered optimistic, whilst it has taken into account the necessary risks. Given that the share price at time of writing is $54.51, the recommendation is **HOLD**.

7Relative Valuation

As described in the literature review, it is helpful to supplement the discounted cash flow analysis with a relative valuation.

7.1 Peer Group

The most obvious peers are Dr. Pepper and Pepsi Company, as they are view as the main competitor of Coca Cola. However, as discussed in Section2.2.1, it might not always be the most accurate peers. It is possible to find peers based on other characteristics such as capital structure and growth.

	CAGR	ROE	ROIC	Debt/Equity	12 M EV/EBIT	12 M EV/EBITDA	12 M PE
Coca-Cola	-	40,50 %	12,10 %	2,22	22,62	21,01	19,30
PepsiCo	2,22 %	50,40 %	11,30 %	3,28	20,16	16,10	25,16
Dr. Pepper	13,09 %	5,80 %	3,20 %	0,59	18,04	15,46	25,24
Unilever	0,34 %	73,70 %	25,40 %	1,73	16,26	13,39	20,39
Kellog	0,36 %	43,80 %	10,70 %	2,40	16,14	12,48	18,20

Figure 32: Peer Group

As seen in Figure32, PepsiCo, Dr. Pepper Snapple, Unilever and Kellog are used as peer groups. PepsiCo and Dr. Pepper are used as industry peers, while Unilever and Kellog are used as they share similar characteristics. PepsiCo is arguably the one closest to Coca-Cola on all characteristics.

7.2 Multiples Valuation

As previously discussed, the best multiples are forward looking, earning based multiples. In Figure 33, the chosen multiples are displayed. The multiples are for year-end 2021

	EV/EBIT	EV/EBITDA	PE
Industry Average	19,10	15,78	25,20
Comparable Average	16,20	12,93	19,30
PepsiCo	20,16	16,10	25,16

Figure 33: Multiples

Industry average is the average of PepsiCo and Dr. Pepper, comparable average is the average

of Apple and Kellog, and lastly, PepsiCo are included alone. The values of the multiples are fairly similar cross sections, which are good, since multiples with a great dispersion are a source of error.

In Figure34the valuation is summarized. The multiples are multiplied with the forecasted values of EBIT, EBITDA and EPS for 2021. Enterprise value is subtracted net debt in order to arrive at equity value, which is then divided by number of outstanding shares to end up at a target price.

	EBIT	EBITDA	EPS
KO forecasted values	10 208 000	11 744 000	2,18
Enterprise Value	EV/EBIT	EV/EBITDA	PE*
Industry Average	219 848 832	196 098 060	230 914 152
Comparable Average	186 412 338	160 730 818	176 805 102
PepsiCo	232 047 312	200 111 981	230 547 622
Equity Value	EV/EBIT	EV/EBITDA	PE*
Industry Average	178 093 266	154 342 494	189 158 586
Comparable Average	144 656 772	118 975 252	135 049 536
PepsiCo	190 291 746	158 356 415	188 792 056
Target Price	EV/EBIT	EV/EBITDA	PE*
Industry Average	41,398	35,877	43,970
Comparable Average	33,625	27,656	31,392
PepsiCo	44,233	36,810	43,885

Figure 34: Multiples Valuation

It is possible to observe some level of consistency in the multiples valuation with an average of 37.65. The result is significantly below the results achieved from the discounted cash flow analysis, even when comparing the highest target price.

One reason for the difference is that multiples often fails to capture future potentials. More on, values used might be heavily affected by the Covid-19 pandemic. Thus, using historical values would've yielded other results. However, the difference might also suggest that the DCF is weighted to much on the bull side.

8Investment Bank Report Comparison

In order to establish whether the result of the valuation is sensible, it will be compared to the result of an investment bank. This dissertation will be compared with the works of Barclays published 11.02.21 titled "The Coca-Cola Company - A First Glimpse". Their stock rating stands unchanged at Overweight, while their price target are raised 5% from $59 to $62, showing a upside potential of 25% from the price on the day before the publishing ($49.6). A lot of the optimism in the report is rooted in the quick recovery demonstrated by Q4 results.

Barclays forecast period goes from 2021 to 2023, short of the forecast period used in this dissertation. A comparison of some of the most important components can be seen in Figure35

Comparing with Barclays	2021F	2022F	2023F	CAGR
Revenues - Barclays (B)	36 027	38 162	40 425	7,0 %
Revenues - Dissertation (D)	34 266	35 398	36 591	2,2 %
Net Income - B	9 362	10 148	10 973	9,2 %
Net Income - D	5 633	6 256	6 534	5,1 %
Short and long-term debt - B	42 793	42 793	42 793	0,0 %
Short and long-term debt - D	50 249	55 109	62 347	7,5 %

Figure 35: Barclays Comparison

Both revenues and net income have a significantly higher growth, which are two important components of an equity valuation. More on, Barclays valuation methodology assumes a premium of 25% to Large-Cap Staples peers, meaning they base some of their valuation on relative measures.

Barclays' downside case assumes that Coca-Cola will trade in line with Large-Cap Stables with the downside EPS of $2.09, resulting in a price target of $48. If the upside and downside case of Barclays are weighted using the same weighting as in this dissertation, the target price would be $55, which significantly closer to the price target found in the dissertation.

The report does not discuss the continuing value of Coca-Cola, which previously has been shown to be of significant importance. Therefore, the steady growth might also be a factor explaining the difference between the target prices.

Conclusively, both valuations have taken a optimistic perspective on the future of Coca-Cola. The approaches are similar, even though the Dissertation is forecasted for a couple more years. Therefore, the results of the valuation done in this dissertation gains more credibility.

9Conclusion

The overall purpose of this dissertation was to value the equity of coca-Cola and provide a target price accompanied by a recommendation. This led to a deep-dive into The Coca-Cola Company and the non-alcoholic beverage industry.

The literature review is suppose to serve as an overview of the many different valuation models and methods which has influenced equity valuation practises throughout the decades. The conclusion of the literature review is that a discounted cash flow of the free cash flow to firm is the most reasonable model to utilize. Additionally, it was concluded that the DCF model should be complemented with a relative valuation model using multiples.

First step of the valuation process is to examine the external factors influencing the valuation process. In the case of Coca-Cola, the most influential factors are changing consumer preferences and rising health concerns, on an industry level. On a macro level, the most influential factor is the ongoing Covid-19 pandemic.

The next step is to forecast the future performance of the Company, as well as the balance sheet. There are only some balance sheet items which is crucial for the valuation process. However, balance sheets are often forecasted as a helpful tool for money management.

In response to the many factors that have an influence on coca-Cola, two scenarios were developed. What separates the two scenarios are the growth rates of revenue in each segments. The result is revenues which reflects both the worst and best case scenarios.

The result of the valuation is a target price which is not greater than the market price, and hence a HOLD recommendation. This is despite the author considering the valuation to be optimistic.

Main challenges have been dealing with the pandemic, which was resolved by sing growth rates which would result in the company being back on 2018 levels at the end of 2021. More on, Coca-Cola has been investing a lot in the bottling process and refranchising. This has resulted in inconsistent revenue streams and cost. This was solved by a mixture of external estimates and historic estimates of CAGR and forecast ratios.

Another noteworthy case of the valuation is the gap between the relative valuation, DCF valuation and Investment Bank report. This serves as a proof of how the assumptions made affects the valuation process. It is reasonable, since predicting future performance is impracticable.

Appendices

AFinancial Performance

A.1Historical Financial Performance

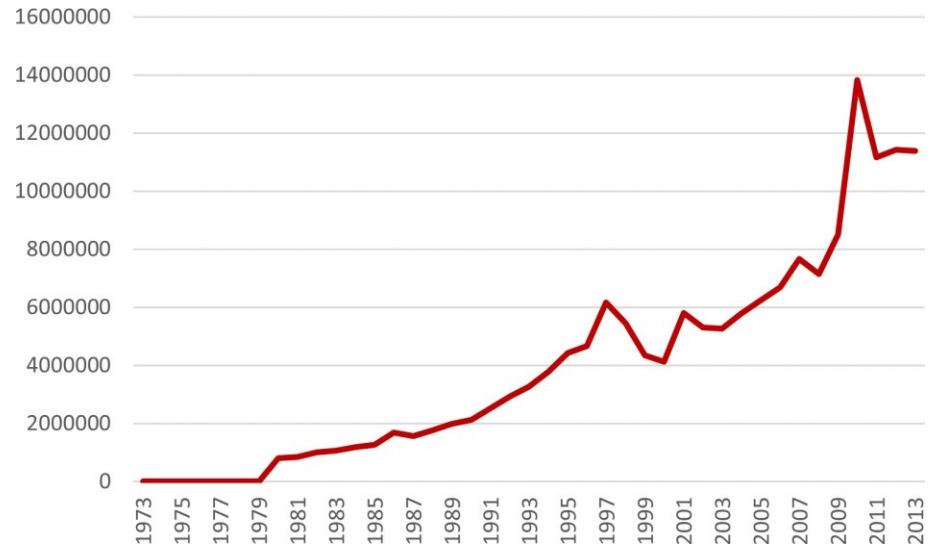

Figure 36: Historic EBIT

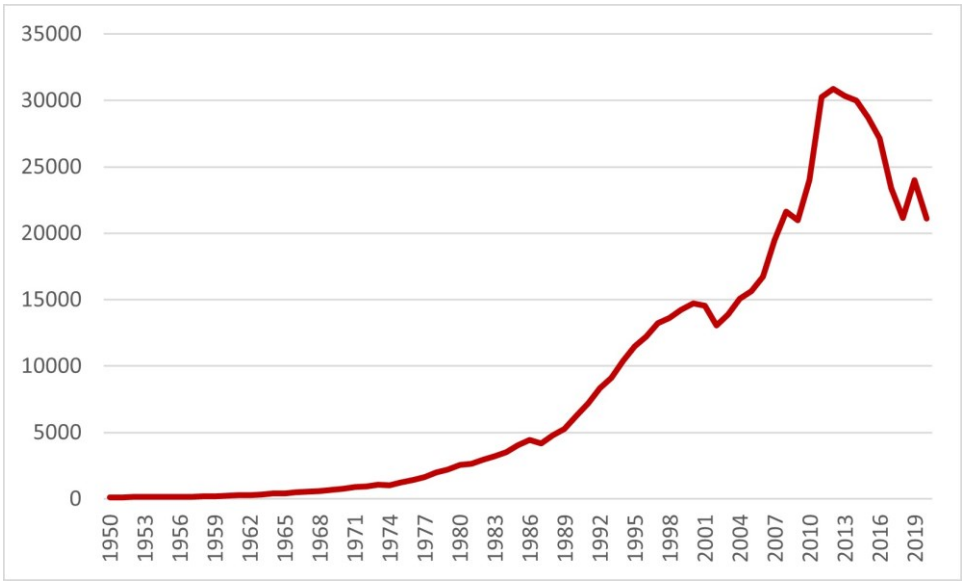

Figure 37: Historic Gross Profits

BBrands

Sparkeling Soft Drinks	*Juice, Dairy and Plant-Based*	*Water and Hydrations*	*Coffees*
Coca Cola	**Minute Maid**	**Dasani**	**Georgia Coffee**
Coca Cola	Minute Maid Original	**smartwater**	Georgia Coffee Fragrant Black
Coca Cola Zero Sugar	Minute Maid Zero Sugar Lemonade	smartwater	Georgia Japan Craftsman Latte
Coca Cola Vanilla	Minute Maid Aplle Juice Box	smartwater sparkling	Georgia Coffee Iced Café Au Lait
Coca Cola Cherry	Minute Maid Refreshment Lemonade	smartwater alkaline 9+pH	**Costa**
Coca Cola Orange Vanilla	Minute Maid Fruit Punch	smartwater antioxidant	Costa Coffee
Diet Coke	**Innocent**	smartwater flavor infused	Costa Ready-to-Drink
Coca Cola Orange Vanilla Zero Sugar	Innocent Gorgeous Greens	**Powerade**	***Teas***
Coca Cola with Coffee	Innocent Bubbles Apple and Berries	Powerade	**Fuze Tea**
Coca Cola Energy	Innocent Oat	Powerade Zero Sugar	Fuze Tea Sparkling Lemon
Coca Cola Energy Zero Sugar	Innocent Apple Juice	Powerade ION4	Fuze Teas Peach Hibiscus
Coca Cola Life	**Simply**	**vitaminwater**	**Honest**
Sprite	Simply Orange	vitaminwater energy	Honest Tea
Sprite Zero Sugar	Simply Lemonade	vitaminwater foucs	Honest Kids
Sprite Cranberry	Simply Juice Drinks	vitaminwater zero sugar reset	Hones Lemonade
Sprite Zero Sugar Cranberry	Simply Light	vitaminwater zero sugar go-go	**Gold Peak**
Fanta	Simply Variety Juices	**Topo Chico**	Gold Peak Sweet Tea
Fanta Orange	Simply Smoothies	Topo Chico	Gold Peak Diet Tea
Fanta Orange Zero Sugar	**fairlife**	Topo Chico Twist of Lime	Gold Peak Slightly Sweet Lemon Tea
Fanta Pineapple	fairlife ultra-filtered milk	Topo Chico Twist of Grapefruit	Gold Peak Unsweetened Rasperry Tea
Fanta Grape	fairlife ultra-filtered milk with DHA	**Aquarius**	**Peace Tea**
Schweppes	Core Power	Aquarius	Peace Tea Georgia Peach
Schweppes Ginger Ale	fairlife YUP!	Aquarius Vitamin Guard	Peach Tea ZER-OH Pineapple Groove
Schweppes Tonic Water	fairlife smart snacks	**I Lohas**	**Ayataka**
Schweppes Mojito	**AdeS**	I Lohas	Ayataka
Schweppes Soda Water	AdeS Original	I Lohas Lemon	Ayataka Amami Green Tea
Appletiser	AdeS frutas	I Lohas Sparkling	Ayataka Roasted Green Tea
Fresca	AdeS Max	**Ciel**	Ayataka Speciality Tea
Fresca Original Citrus	AdeS Zero	Ciel	**Dogadan**
Fresca Black Cherry Citrus		Ciel Sparkling	Dogadan Ihlamur
Fresca Peach Citrus		Ciel Exprim Lime	Dogadan Yesil Cay Ananas Acaili
Barq's			Dogadan Destek Ailesi Anti Ox
Barq's Root Beer			
Barq's Diet Root Beer			
Barq's Creme Soda			
Barq's Red Creme Soda			

Figure 38: Source: Coca Cola Website

CDividends

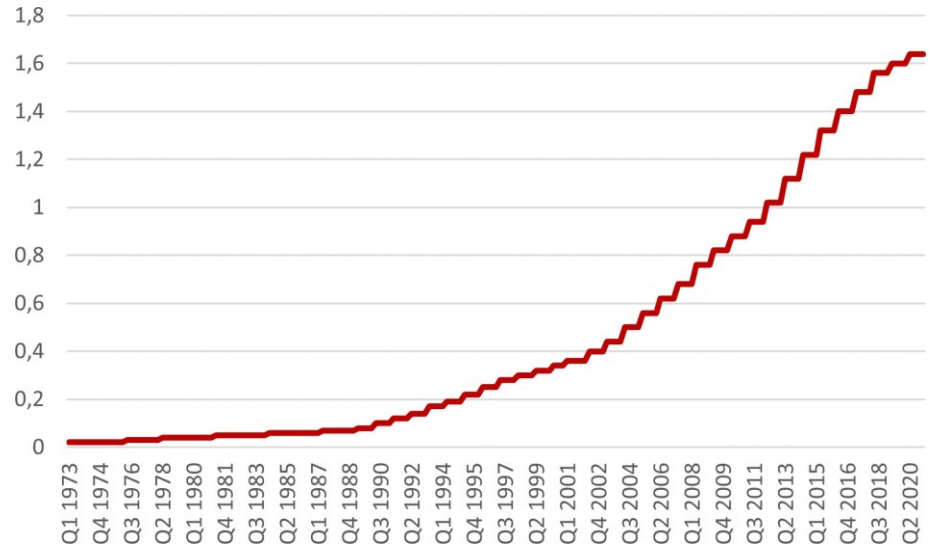

Figure 39: Historical Dividends

Figure 40: Historical Dividends Yield

DScenarios

Revenue Breakdown	2021	2022	2023	2024	2025
Total Revenue	**33 717**	**34 121**	**34 538**	**34 969**	**35 412**
By Geographics					
Europe, Middle East & Africa	5 706	5 616	5 527	5 440	5 354
Latin America	3 520	3 540	3 561	3 582	3 603
North America	11 760	12 054	12 355	12 664	12 981
Asia Pacific	4 216	4 219	4 222	4 224	4 227
Global Ventures	2 049	2 108	2 169	2 232	2 297
Bottling Investments	6 372	6 487	6 605	6 725	6 847
Corporate	96	97	99	101	103

Figure 41: Bear Scenario

Revenue Breakdown	2021	2022	2023	2024	2025
Total Revenue	**34 816**	**36 674**	**38 644**	**40 733**	**42 949**
By Geographics					
Europe, Middle East & Africa	5 706	5 882	6 065	6 253	6 447
Latin America	3 621	3 748	3 879	4 015	4 156
North America	12 071	12 700	13 361	14 057	14 790
Asia Pacific	4 449	4 698	4 961	5 239	5 532
Global Ventures	2 210	2 454	2 724	3 024	3 357
Bottling Investments	6 663	7 094	7 552	8 041	8 561
Corporate	96	99	101	104	106

Figure 42: Bull Scenario

EBonds

Description	Maturity Date	Amount Outstanding	Yield	Weigthed YTM
KO 0.250 22-Dec-2022	22.12.2022	603 798 441	-0,462	-0,00006
KO 0.500 08-Mar-2024	08.03.2024	603 050 000	-0,201	-0,00003
KO 3.250 11-Jun-2024	11.06.2024	426 855 000	0,812	0,00008
KO 1.750 06-Sep-2024	06.09.2024	1 000 000 000	0,472	0,00011
KO 2.950 25-Mar-2025	25.03.2025	1 000 000 000	0,8	0,00018
KO 2.875 27-Oct-2025	27.10.2025	1 750 000 000	0,92	0,00037
KO 2.550 01-Jun-2026	01.06.2026	500 000 000	1,033	0,00012
KO 2.250 01-Sep-2026	01.09.2026	1 000 000 000	0,971	0,00022
KO 1.875 22-Sep-2026	22.09.2026	1 447 320 000	-0,133	-0,00004
KO 0.750 22-Sep-2026	22.09.2026	1 206 100 000	-0,083	-0,00002
KO 1.125 09-Mar-2027 '26	09.03.2027	1 809 150 000	0,106	0,00004
KO 3.375 25-Mar-2027	25.03.2027	1 000 000 000	1,385	0,00032
KO 2.900 25-May-2027	25.05.2027	500 000 000	1,418	0,00016
KO 1.450 01-Jun-2027	01.06.2027	1 500 000 000	1,36	0,00047
KO 1.500 05-Mar-2028	05.03.2028	750 000 000	1,612	0,00028
KO 1.000 15-Mar-2028	15.03.2028	1 300 000 000	1,655	0,00049
KO 1.000 02-Oct-2028	02.10.2028	631 243 825	0,016	0,00000
KO 0.125 09-Mar-2029	09.03.2029	844 270 000	0,319	0,00006
KO 0.125 15-Mar-2029	15.03.2029	1 206 100 000	0,317	0,00009
KO 2.125 06-Sep-2029	06.09.2029	1 000 000 000	2,003	0,00046
KO 3.450 25-Mar-2030	25.03.2030	1 250 000 000	2,137	0,00061
KO 1.650 01-Jun-2030	01.06.2030	1 500 000 000	2,155	0,00074
KO 2.000 05-Mar-2031	05.03.2031	750 000 000	2,163	0,00037
KO 1.250 08-Mar-2031	08.03.2031	904 575 000	0,478	0,00010
KO 1.375 15-Mar-2031	15.03.2031	1 300 000 000	2,191	0,00065
KO 0.500 09-Mar-2033	09.03.2033	783 965 000	0,687	0,00012
KO 0.375 15-Mar-2033	15.03.2033	904 575 000	0,693	0,00014
KO 1.625 09-Mar-2035 '34	09.03.2035	1 809 150 000	0,852	0,00035
KO 1.100 02-Sep-2036	02.09.2036	603 050 000	0,926	0,00013
KO 0.800 15-Mar-2040	15.03.2040	1 025 185 000	1,175	0,00028
KO 4.125 25-Mar-2040	25.03.2040	218 349 000	2,872	0,00014
KO 2.500 01-Jun-2040	01.06.2040	1 000 000 000	2,859	0,00065
KO 1.000 09-Mar-2041	09.03.2041	783 965 000	1,221	0,00022
KO 4.200 25-Mar-2050	25.03.2050	540 880 000	3,187	0,00039
KO 2.600 01-Jun-2050	01.06.2050	1 500 000 000	3,078	0,00106
KO 3.000 05-Mar-2051	05.03.2051	1 000 000 000	3,121	0,00071
KO 2.500 15-Mar-2051	15.03.2051	1 500 000 000	3,082	0,00106
KO 2.750 01-Jun-2060	01.06.2060	1 000 000 000	3,066	0,00070
KO 7.375 29-Jul-2093	29.07.2093	95 835 000	4,337	0,00010

Figure 43: Outstanding Bonds

FBalance Sheet

CONSOLIDATED BALANCE SHEETS - USD ($) $ in Millions	2015	2016	2017	2018	2019	2020
CURRENT ASSETS						
Cash and cash equivalents	7 309	8 555	6 006	8 926	6 480	6 795
Short-term investments	8 322	9 595	9 352	2 025	1 467	1 771
TOTAL CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	15 631	18 150	15 358	10 951	7 947	8 566
Marketable securities	4 269	4 051	5 317	5 013	3 228	2 348
Trade accounts receivable, less allowances of $526 and $524, respectively	3 941	3 856	3 667	3 396	3 971	3 144
Inventories	2 902	2 675	2 655	2 766	3 379	3 266
Prepaid expenses and other assets	2 752	2 481	2 000	1 962	1 886	1 916
TOTAL CURRENT ASSETS	33 395	34 010	36 545	30 634	20 411	19 240
EQUITY METHOD INVESTMENTS	12 318	16 260	20 856	19 407	19 025	19 273
OTHER INVESTMENTS	3 470	989	1 096	867	854	812
OTHER ASSETS	4 110	4 248	4 230	4 139	6 075	6 184
Deferred Income Tax Assets			330	2 667	2 412	2 460
PROPERTY, PLANT AND EQUIPMENT - net	12 571	10 635	8 203	8 232	10 838	10 777
TRADEMARKS WITH INDEFINITE LIVES	5 989	6 097	6 729	6 682	9 266	10 395
GOODWILL	11 289	10 629	9 401	10 263	16 764	17 506
OTHER INTANGIBLE ASSETS	854	726	368	274	736	649
TOTAL ASSETS	89 996	87 270	87 896	83 216	86 381	87 296

Figure 44: Historical Assets

CONSOLIDATED BALANCE SHEETS - USD ($) $ in Millions	2015	2016	2017	2018	2019	2020
CURRENT LIABILITIES						
Accounts payable and accrued expenses	9 660	9 490	8 748	8 932	11 312	11 145
Notes and Loans Payable, Current	13 129	12 498	13 205	13 194	10 994	2 183
Current maturities of long-term debt	2 676	3 527	3 298	4 997	4 253	485
Accrued income taxes	331	307	410	378	414	788
TOTAL CURRENT LIABILITIES	26 929	26 532	27 194	29 223	26 973	14 601
LONG-TERM DEBT	28 311	29 684	31 182	25 364	27 516	40 125
OTHER LIABILITIES	4 301	4 081	8 021	7 638	8 510	9 453
Deferred Income Tax Liabilities	4 691	3 753	2 522	1 933	2 284	1 833
THE COCA-COLA COMPANY SHAREOWNERS' EQUITY						
Common stock, $0.25 par value; authorized — 11,200 shares; issued — 7,040 shares	1 760	1 760	1 760	1 760	1 760	1 760
Capital surplus	14 016	14 993	15 864	16 520	17 154	17 601
Reinvested earnings	65 018	65 502	60 430	63 234	65 855	66 555
Accumulated other comprehensive income (loss)	- 10 174	- 11 205	- 10 305	- 12 814	- 13 544	- 14 601
Treasury stock, at cost — 2,738 and 2,760 shares, respectively	- 45 066	- 47 988	- 50 677	- 51 719	- 52 244	- 52 016
EQUITY ATTRIBUTABLE TO SHAREOWNERS OF THE COCA-COLA COMPANY	25 554	23 062	17 072	16 981	18 981	19 299
EQUITY ATTRIBUTABLE TO NONCONTROLLING INTERESTS	210	158	1 905	2 077	2 117	1 985
TOTAL EQUITY	25 764	23 220	18 977	19 058	21 098	21 284
TOTAL LIABILITIES AND EQUITY	89 996	87 270	87 896	83 216	86 381	87 296

Figure 45: Historical Liabilities and Equity

CONSOLIDATED BALANCE SHEETS - USD ($) $ in Millions	2021F	2022F	2023F	2024F	2025F
CURRENT ASSETS					
Cash and cash equivalents	4 876	6 205	8 155	7 226	8 106
Short-term investments	1 623	1 685	1 740	1 799	1 861
TOTAL CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	6 499	7 889	9 895	9 025	9 967
Marketable securities	2 516	1 909	2 317	2 907	2 651
Trade accounts receivable, less allowances of $526 and $524, respectively	3 344	3 454	3 570	3 693	3 823
Inventories	2 563	2 660	2 748	2 840	2 938
Prepaid expenses and other assets	1 963	2 028	2 096	2 168	2 245
TOTAL CURRENT ASSETS	16 884	17 940	20 627	20 633	21 624
EQUITY METHOD INVESTMENTS	19 945	20 639	21 359	22 103	22 873
OTHER INVESTMENTS	790	820	847	876	906
OTHER ASSETS	6 711	7 282	7 902	8 575	9 305
Deferred Income Tax Assets	2 828	2 832	2 948	3 069	3 196
PROPERTY, PLANT AND EQUIPMENT - net	9 192	9 495	9 816	10 153	10 510
TRADEMARKS WITH INDEFINITE LIVES	10 858	11 341	11 847	12 374	12 925
GOODWILL	17 506	17 506	17 506	17 506	17 506
OTHER INTANGIBLE ASSETS	649	649	649	649	649
TOTAL ASSETS	85 362	88 505	93 500	95 938	99 493

Figure 46: Forecasted Assets

CONSOLIDATED BALANCE SHEETS - USD ($) $ in Millions	2021F	2022F	2023F	2024F	2025F
CURRENT LIABILITIES					
Accounts payable and accrued expenses	11 468	11 801	12 143	12 496	12 858
Notes and Loans Payable, Current	7 130	6 257	6 649	7 645	7 647
Current maturities of long-term debt	485	1 391	4 272	2 061	2 753
Accrued income taxes	788	1 091	1 091	2 163	2 163
TOTAL CURRENT LIABILITIES	19 872	20 541	24 155	24 364	25 421
LONG-TERM DEBT	30 377	33 936	37 596	40 211	43 910
OTHER LIABILITIES	9 985	10 547	11 141	11 768	12 430
Deferred Income Tax Liabilities	2 279	2 283	2 376	2 474	2 576
THE COCA-COLA COMPANY SHAREOWNERS' EQUITY					
Common stock, $0.25 par value; authorized — 11,200 shares; issued — 7,040 shares	1 760	1 760	1 760	1 760	1 760
Capital surplus	18 421	19 280	20 178	21 119	22 103
Reinvested earnings	65 134	63 806	62 286	60 677	58 873
Accumulated other comprehensive income (loss)	- 12 009	- 12 759	- 14 670	- 14 675	- 15 379
Treasury stock, at cost — 2,738 and 2,760 shares, respectively	- 52 470	- 52 928	- 53 390	- 53 857	- 54 327
EQUITY ATTRIBUTABLE TO SHAREOWNERS OF THE COCA-COLA COMPANY	20 836	19 158	16 163	15 024	13 030
EQUITY ATTRIBUTABLE TO NONCONTROLLING INTERESTS	2 012	2 040	2 068	2 097	2 126
TOTAL EQUITY	22 849	21 198	18 232	17 121	15 156
TOTAL LIABILITIES AND EQUITY	85 362	88 505	93 500	95 938	99 493

Figure 47: Forecasted Liabilities and Equity

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